1858MNRAS..18..319W

### *Parthenope.*

| Mean Solar Time of Observation. | | Apparent R.A. | Apparent N.P.D. |
|---|---|---|---|
| | h m s | h m s | ° ′ ″ |
| 1858, June 12 | 13 25 42·3 | 18 49 59·61 | 108 37 5·92 |
| 18 | 12 57 13·4 | 18 45 5·31 | 108 51 33·07 |
| 22 | 12 37 53·7 | 18 41 28·75 | 109 2 29·64 |
| 28 | 12 8 36·0 | 18 35 45·52 | 109 20 17·33 |

### *Iris.*

| Mean Solar Time of Observation. | | Apparent R.A. | Apparent N.P.D. |
|---|---|---|---|
| | h m s | h m s | ° ′ ″ |
| 1858, June 25 | 13 52 25·7 | 20 8 2·61 | 105 35 40·92 |
| 28 | 13 38 23·4 | 20 5 47·72 | 105 33 8·00 |

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## *Note from Capt. Clarke, R.E., to the Editor.*

"The correction to the latitude determined from a transit observed in the prime vertical, on account of azimuthal deviation, level, and collimation errors, has a singular resemblance to the correction to a transit in the meridian; the former may be put in the form

$$\frac{a \sin z + b \cos z + c}{\cos z}$$

and the latter is

$$\frac{a \sin z + b \cos z + c}{\cos \delta}$$

the quantities $a$ $b$ $c$ $z$ representing the same things in each case.

"*Southampton, July* 12, 1858."

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## *New Elements of Comet II.*, 1858, *being an Extract of a Letter from Dr. Winnecke to Mr. Carrington.*

(*Translation.*)

"The second comet of this year, which is additionally interesting on account of its identity with one of 1819, has been found at St. Jago by Dr. Moesta, after its perihelion passage, by means of my ephemeris, forwarded by Dr. Argelander. Since his observation of May 29, the only one which Moesta had provisionally reduced, differs from the position given by my last elements

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by about a minute of time in R.A., I have been at the pains to deduce new elements from the observations, now extending over 82 days. They are as follows,—

Epoch May 30, Berlin Time.
° ′ ″
$M$ = 359 59 12·75
$\pi - \Omega$ = 162 6 3·84 } Mean Equinox 1858·0
$\Omega$ = 113 32 48·50 }
$i$ = 10 48 3·78
$\varphi$ = 48 59 47·78
$\mu$ = 639″·4465
Log $a$ = 0·4961350

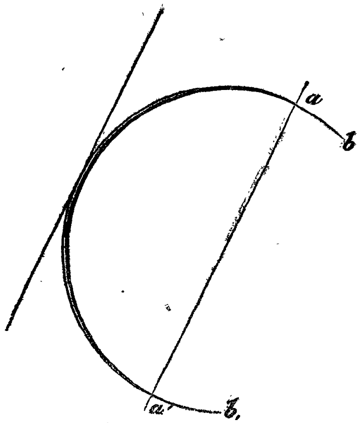
The period which hence results is 5·549 years, and that which is given by the supposition that the comet has performed seven revolutions since 1819 gives 5·541, so that this conclusion is no doubt correct. You will oblige me if you will have the goodness to communicate these elements to the Royal Astronomical Society when it may be convenient.

"*Pulkova, August* 20, 1858."

## *Additional Note relative to the Approaching Conjunction of Venus.* By Professor Mädler.

In reference to the observations of *Venus* at the conjunction 1858, December 13, proposed by Professor Mädler (*Monthly Notice*, Vol. XVIII., No. 8, June 11, 1858) for the purpose of determining the horizontal refraction at the surface of *Venus*, Professor Mädler has favoured the Astronomer Royal with the following explanation:—

"I determined the extension of the visible circumference with the aid of a wire-micrometer. The horns of the planet were too faintly visible to bear the approximation of a wire, therefore I made the distance of the parallel wires equal to the apparent semi-diameter of *Venus*.



"The prolongations $a\,b$ and $a'\,b'$ are the effect of the apparent radius of the sun, as seen from *Venus*, combined with the horizontal refraction in the atmosphere of *Venus*. These prolongations are, however, mere estimations; for the single results you will find them in the *Astronomische Nachrichten*, Vol. XXIX., No. 679.

"If we put

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